

# **432 MHz AND ABOVE EME NEWS**

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EME NETS

**14.345, 10 AM ET SATURDAYS, AFTER VARO NET SUNDAYS:**

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## 432 AND ABOVE PHOTOGALLERIES

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# CONDITIONS

There are almost as many late reports from the ARRL EME Contest as there are reports for the Dec sked weekend (SW). DL9KR's lead on 432 was confirmed. OE9XXI has taken 1st place on 1296 with a score of 91x33. However the moon was far from quiet in Dec. 1296 was especially active during the SW with all reports indicating good conditions and a big turnout. Both 10 GHz and 5760 also showed good life. Initials were made on 3 cm by OK1UWA and HB9BHU and on 6 cm by F2TU and F1AHN with more stations waiting in the wings for their debut. I spent most of my time on 70 cm in Dec. Conditions and activity was not as good as on 23 cm, but there was still respectable activity. One of the problems with Internet skeds is that they tend to spread out activity over several usable weekends. The whole idea behind the SWs was to concentrate activity. Over the years there have been requests for multiple SWs. There are many months where the difference between weekends is minimal. However, when you have more than one SW, the activity will be less on any one of these weekends. Perhaps EME activity has grown to a point where we don't need a single weekend. Activity is much greater today than it was 25 years ago. I still feel there is value in trying to concentrate on one weekend.

# EME SSB CONTEST

If you can operate 1296 EME, whether you can operate SSB or not, you will want to participate in the EME SSB Contest. This contest is meant to be a fun event. The "big gun" signals do help the smaller stations get in on the fun, so the top scoring station will receive a hansom framed certificate. This year the SSB contest starts on 3 Feb at 1100 and continues to 4 Feb at 1200. (The intention is to give everyone one common moon pass.) Operation is on 1296 only. Scoring will be contact points times number of Grid Sectors (IO, JM, FN, ...). SSB to SSB contacts will count as 2 points. SSB to CW (or CW to SSB) 1 point. The exchange is your Grid Sector. Operation may be by single or multiple operators. No distinction for scoring will be made. CW only stations are encouraged to participate. Log should be sent to the "432 and Up EME NL" c/o K2UYH, by email to: [K2UYH](mailto:K2UYH) or by post to the NL address..

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AL7OB

Mike is now basically QRV on 70 cm with his new 9.2 m dish and 700 W PA. The latest pictures and station information is on his WEB site at . He is interested in skeds, but will be in Atlanta during the next SW. Mike will be home in time to get on the moon by 0730 on 13 Jan and is open for skeds. He can be reached by email at:

[Mike, AL7OB](#)

#### **DJ5MN**

Bernhard ran 2 skeds on 1296 during Dec WA1JOF, but only achieved partials (O) copy. One sked was cut short by an enormous thunderstorm in which Bernhard lost his 70 cm EME array. He did work F1PYR on 23 cm on random with good signals.

#### **DL8OB**

Juergen writes -- I was not very active the last year, because I have had much trouble with my serious ill mother the last 7 months and had to take care of my 80 year old father. I am still interested in skeds and can be reached at email Juergen.Kaufer@t-online.de. I hope to be a little more active next year.

#### **DJ9YW**

Heinrich writes -- EME QSOs in Dec on 1296 MHz were on 10 Dec WA1JOF for initial #125 and K5JL, on 11 Dec K0YW, W7CS, K0YW on SSB and KA0Y #126 and on 13 Dec WA6PY #127. My rig is a 4.5 m dish with 360 W at a cir. feed. For more info see:

[DJ9YW's WEB Page](#)

or writes: [for skeds.](#)

#### **DL1YMK**

Michael is preparing to install an MA type feed horn with IMU circular polarizer for 1296 operation. The following are some of his comment which you might find of interest -- If I rotate a linear polarized antenna in front of the horn, there is a slight deviation in the reading of the thermal power meter, but definitely less than 3 dB. This observation made me feel rather comfortable, as G3WDG wrote years ago: "you may sweat blood with getting a circularity better than 3 dB, but it doesn't buy you much." The return loss on each port is not as good as Tom, K2AH, quotes it, but I do achieve 23 and 24 dB, respectively. I did not bend the monopoles (52 mm long) in the end version, because I could not see an impact on the RL worth enough to disturb the field for the circularity. This does not give me any headache, as finally I will run a YL1050 on it, which surely is tolerant enough. The horn so far has no nulling post, but again I get about 21.5 dB of isolation, just as it is. This makes me think a bit more, as my plans are to switch the preamp with an SMA-relay, which means while transmitting I have approx. 5-10 watts on the NC-port of the relay. My idea is to terminate this port with 50

ohms, in order not to disturb the field in the horn; this could be the case, if I would leave the port just open, resulting in reflected power traveling back into the waveguide portion of the horn. On the other hand I could easily rectify the RF and have a nice monitoring of the isolation, giving some information of the state of the horn. All data given are meant for the horn on the workbench. Hopefully it won't deteriorate much, when mounted in the dish. Unfortunately I lost a lot of time because of very bad weather, but hopefully will make my 1st 23 cm QSOs in the DUBUS contest.

#### **DL5LF**

Frank (JO54af) is now QRV on 432 and is interested in skeds. During the EME contest he QSO'd N2IQ, DL9KR, OZ6OL, DL7APV, DK3BU, K1FO, KA0Y, OH2PO, JL1ZCG and OZ4MM for a score of 10x7 - not a bad start! He can be reached at (Frank Dobert, Vogelstange 62, 24220 Flintbek), Tel +49-4347- 5191. His WEB page is <http://www.qsl.net/dl5lf> and email address is . [We had a partial QSO on 9 Dec. He copies me (O), but did not hear him - see my report.]

#### **DL6LAU**

Carsten (JO53cf) visited DL9EBL - My Dec SW moon time was cut a bit short because I visited Karl, DL9EBL on Saturday. I spent 1500 km on the 'autobahn', but it was worth the trip to see his 11 m dish. This separates the men from boys - hi. On 23 cm on 8 Dec I did work G4CCH (559/559) and on 9 Dec ZS6AXT (559/559), S59DCD (549/449) for initial #47, DJ5MN (559/569) and on SSB (52/44) and G4CCH (569/559) and SSB (53/53), on 10 Dec KA0Y (569/569) #48, OK1KIR (559/549) #49, K0YW (569/549), VE6TA (449/O) #50, W7SZ (539/539) #51 and W7QX (0/0) #52, on 16 Dec WA6PY (O/559) #53, G3LTF (569/559) and SSB (53/54) and G4CCH (549/549), and 17 Dec W6HD (559/559) #54, SM2CEW (549/549) #55, OZ4MM (559/559) and SSB (54/54) and HB9Q (559/529). I heard F1PYR very well, but every time I called him on his frequency he moved up in freq and started to call CQ again. I am up to initial #54 and DXCC 20 in just 4 weekends. I still have many things to improve. I will install the VE1ALQ boards and encoders to have better accuracy while tracking and am also working on 6 dB more power. If the WX allows, I'll try my 1st 13 cm EME QSOs soon.

#### **F1AHN**

Jean Pierre is now connected! His [email address](#) -- I ended the EME contest on 23 cm with a score of 40x23. This was with only a 2.6 m dish from my new home QTH in IN88mr. I now have a new dish (3.2 m solid) for use on tropo and EME. On 30 Nov I contacted F2TU (M/O) on 5760 (cir pol). I had 30 W at feed and copied weak echoes. Philippe had 12 W at the feed and good echoes (6-7 dB). This was the 1st F-F 6 cm EME QSO!

#### **F2TU**

Philippe at [email](#) writes -- I am now QRV on 5760 with a 8 m dish and 12 W at a

cir IMU feed Moon noise is 2 dB with 0.4 degs beamwidth. I QSO'd on 30 Nov at 1720 F1ANH (O/M) for the 1st F/F EME on 6 cm, on 5 Dec at 2225 partial W5LUA (M/M) - no R's - only a 15 minute window, and on 6 Dec at 2245 W5LUA (M/M) for 1st F/W on 6 cm. I will be QRV 6/7 Jan on 5760.1 and hope for many skeds if WX is ok.

### **G3LTF**

Peter reports -- Its been a busy month. After the dish crash that I reported last month I thought at 1st that the dish was undamaged but it turned out that the hub baseplate was bent by the impact. I had to support the dish on scaffolding and remove the baseplate and fit a steel replacement, which was strong enough to pull the hub back to shape. The performance is now back to normal on 13 cm with 0.3 dB of moon noise. I worked on 1296 on 8 Dec, while checking the dish, G4CCH on SSB, DJ5MN and K5JL, on 9 Dec on 432 DL8OBU and SM3AKW, and on 1296 S59DCD, DF4PV, ZS6AXT, F1PYR for initial #167, HA5SHF, K3AX and WA1JOF #168 - heard were W2UHI, K0YW and OK1KIR, on 10 Dec on 432 VK4AFL - an excellent signal, DF3RU, UA6LGH and SM2CEW - CWNRR UT3LL, and on 16 Dec on 1296 W7GBI, OZ4MM on SSB and DL6LAU on SSB. Very strong winds restricted operation on 10 Dec. The new 1296 feed horn and a reduced number of connectors has made a great improvement on receive. With preamp NFs of around 0.3 dB you cannot afford any loss in front; even the best 3 dB hybrid has a 0.2 dB or so ohmic loss, so polarizers are the answer even though more complex mechanically.

### **HB9Q**

Dan at [email](#) reports -- We worked in the EME contest on 432 80x30 and on 1296 64x26. We were a multi-band multi-operator station and were also on 144 and worked 126x46 there. This was the 1st time we used our new 15.28 m dish in the ARRL EME contest. At the same time it is the 1st time we operated 2 stations at the same time, one on 144 and the other one on 432 or 1296. Due to the heavy work schedule of HB9DBM and HB9CRQ, we had no time to check interference between the 2 stations before the contest. So we started at 0000 and 1st had to fix a few minor bugs. Never the less this took away from the limited operation time. On 2 m we operated during the Oct weekend for approx 10 hours and in Nov for 20 for a total of 30 hours (out of more the 48 hours of moontime). Operators were HB9DBM, HB9QQ and HB9CRQ. On 70 cm we operated both weekends only the Saturday hours for a total of approx 18 hours. All the operation was done by HB9CRQ. On 23 cm we operated both weekends only the Sunday hours for a total of approx 18 hours. Again all the operation was done by HB9CRQ. Worked on 70 cm were on 21 Oct DF3RU (O/569), DL4MEA (539/O), EA3DXU (539/539), JH4JLV (539/559), OE3JPC (O/559), G4ERG (O/O), SM3AKW (539/569), DK3WG (559/559), JA6AHB (559/569), RW1AW (529/559), UT3LL (529/559), S52CW (529/559), S57Q (419/O), S51ZO (419/O), LA9NEA (529/529), PA0PLY

(529/599), JL1ZCG (559/559), DJ3FI (529/559), JA5NNS (529/559), JR9NWC (529/539), JH0WJF (539/539), DL9KR (559/559), JS3SIM (529/O), JJ1NNJ (519/559), G4YTL (519/449), UA6LGH (429/559), G3SEK (529/559), DL1YMK (519/539), HA1YA (519/559), OE5EYM (559/559), YO2IS (519/559), JA7BMB (529/449), OH2PO (559/559), PA3DZL (O/O), HA5BDJ (O/559), G3HUL (519/449), K8UC (549/559), N9AB (549/559), I5CTE (539/559), PA4FP (529/559), K1FO (539/579), SM2CEW (549/569), RA3LE (439/559), VE6TA (529/449), OZ4MM (559/579), KA0Y (559/559), K5AZU (539/559), K8ISX (529/539), F6KHM (529/559), KF7J (529/559), DK0MM (429/449), W7SZ (539/539), DL4KG (429/549), KL7HFQ (419/O), WB0GGM (529/559), OZ6OL (449/559), K4EME (529/449), N2IQ (559/569), K0RZ (529/549), RZ3BA/1 (429/O), DL7APV (539/559), OE9ERC (549/559), UA3PTW (519/559), W2WD (539/549) and K5GW (559/559), and on 18 Nov G3LTF (529/539), F5FLN (429/O), DJ6MB (559/549), F5DKD (O/O), YU1EV (O/O), F6HYE (539/549), ON5OF (529/O), F2TU (O/O), CT1DMK (529/O), K5WXN (429/449), K2UYH (549/569), W7HAH (O/559), KE2N (539/339), W0JKY (O/O) and G3LQR (O/O); and on 23 cm on 22 Oct JH5LUZ (529/579), IK2MMB (529/549), JA4BLC (529/559), JA7BMB (539/459), F1ANH (529/439), JA8IAD (539/539), DJ5MN (539/O), DL6LAU (O/O), G3LTF (529/569), HB9SV (559/569), JA8ERE (529/559), OZ6OL (539/559), DF9QX (539/559), JF3HUC (539/559), F5PAU (549/O), JA6CZD (439/559), SM3AKW (529/559), PA3DZL (529/559), G4CCH (559/559), DF4PV (419/559), OZ4MM (549/569), OH2AXH (549/569), OE5EYM (539/559), ZS6AXT (429/579), OE9XXI (579/569), F6CGJ (549/579), CT1DMK (529/559), PA3CSG (539/559), DH9FAG (529/559), OE5JFL (559/569), K2DH (539/559), HB9BHU (529/559), K3AX (529/549), K5JL (559/589), K9BCT (539/579), K5GW (539/559), WA4OFS (429/439), WD5AGO (429/559), W5LUA (529/569), OK1UWA (429/559), K0YW (O/559), WA4NJP (O/559), WA9OUU (529/559), W7SZ (529/539), K4QI (549/569), K2UYH (539/559), W1ZX (529/559) and W2UHI (559/559), on 25 Oct EA8/LA8LF (539/569) - outside contest, and on 18 Nov HB9BBD (559/599), F2TU (539/559), VK5MC (429/O), SM2CEW (539/559), OE9ERC (559/569), HA5SHF (429/569), DF3RU (529/559), N2IQ (539/579), F1OAT (O/559), WA1JOF (549/569), VE9DW (529/559), DK0ZAB (429/529), W3XS (539/569), WA9FWD (429/449) and G4DZU (O/O), DJ9YW (529/559). It was very interesting to get used to the dish antenna and new bands. We now clearly know what we have to improve. Next time on 432 we will try a new 2 crossed single dipole- feed. we used a crossed double-dipole system giving cir pol on TX, and switchable V/H on RX. We will finish the work on the new PA for full legal power. We only had 400 W per polarization. We hope to be QRV with the improved station by the Dec activity weekend. On 1296 we used the old horn from HB9SV. We are working on a new one, which could improve the performance by as much as 2 dB. We also are working on a PA for full legal power. We only had 400 W. We will also have to work on the mechanical part of the feed system. We need to make it more lightweight. This will be done in spring

2001. Here we can gain also 2 dB through more precise positioning of the complete system. We are also working to add 144 to the dish. If everything goes well we will be QRV in early spring 2001. Our old 8x19 2 m array by m2 is still performing very well. It was great fun to work 3 bands! A total of 270 stations and 101 multipliers were achieved. All QSOs were on random. We found conditions often changing and it was very interesting to watch the situation on the different bands. We learned a lot, especially on 432 and 1296. We hope to be better prepared for the 2001 contest. Our standings are now up to on 432 initial #111 initials and on 1296 #74.

#### **IK2MMB**

Sergio was QRV on 23 cm during the Dec SW. He made several QSOs including an initial with KA0Y with very good signals. Sergio also copied W7QX FB during one of Larry's skeds, but never had the opportunity to call him. He reports that his echoes ranged from never heard so strong to very poor with lots of QSB.

#### **K0YW**

Bruce at [email](#) had 18 QSOs during the Dec SW on 23 cm. Among those QSO'd were W2UHI, K2DH, OK1KIR for initial #79, G4CCH on SSB, K5JL on SSB, W0KJY #80, W7SZ, VE6TA, N2IQ, HA5SHF #81, K3AX, W1QC, WA1JOF, DL6LAU, W7CS, W7GBI #82, W7QX and IK2MMB. He heard but did not call WA6PY, G3LTF, KA0Y and OZ6OL. Bruce confirms he a chirp on his signal. Bruce reports that his power supply sags under load.

#### **K3AX**

Harry worked 7 stations on 23 cm during Dec. Contacted were G4CCH, G3LTF, OZ6OL, K5JL, W2UHI, K0YW and KA0Y for initial #90. He heard nil from I0UGB, WA9FWD, W0KJY and WA1JOF during sked, but did hear Don at other times.

#### **K6DV**

Gene writes -- It was sad news to hear of Piero's untimely death. In July 1984, he was in San Diego on business and called me from his hotel. He didn't have a car so I picked him up and drove him to my QTH. We had an enjoyable visit. He took some photos and I took him to the Palomar Mountain Observatory for a tour. I 1st got active on 432 EME in 1981 and it seemed like every SW, one of the 1st EME signals I would hear was I5MSH. He will be truly missed by all in the EME community.

#### **KA0Y**

Ken was active on 1296 during the Dec SW. He initially worked W2UHI and N2IQU and then discovered his moon tracking system was off by 3 minutes. After he corrected the time, signals got louder and he QSO'd W1QC, VE6TA,

**K2DH, DL6LAU, WA1JOF, W7CS, W7QX, W7SZ and IK2MMB.**

### **N1BUG**

Paul at [email](#) is trying to get going on 432 EME and has tried some skeds with DL9KR -- I thought I would let everyone know where I stand. The PA and power supply are fixed and the new driver amp is in line. Power is up 3.5 dB and now at 550 W. I have a little more work to do, juggling the 12V stuff around. I should be ready to try again by the next SW.

### **OE9XX**

Peter's EME Report -- On 1296 in the ARRL EME Contest I achieved a final score of 91x33. No initial contacts were made during the 2nd leg of the contest. On 2304 I was QRV for about 2 hours and the only station heard and worked was OE9ERC. On 10 Dec on 1296 I contacted F1PYR (559/O) for initial #259.

### **OH2PO**

Jukka, OH6DD reports on his groups contest effort -- We finished the contest with 114x37 on 432. The 1st leg was a little disappointing with only 91x33. I felt that we were not hearing as well as earlier and decided to change the preamp to a new PHEMT LNA for the 2nd leg. This seemed to help somewhat, but obviously not enough since DL9KR beat us this time. Congrats to Jan! I missed part of the 2nd weekend due to work commitments in Chicago and could only work the 2nd moon pass. Fortunately Toni, OH2JTE and Matti, OH2PO were able to work the 1st pass. There were several very weak callers as always. Unfortunately some of the new guys give up too soon. DL0AL was one with whom I would have needed a little more time to be able to pull out the full call. Anyway, it was fun to operate Matti's big station once again. I hope to have some time to design a new feed during the winter. We are currently using dual dipole and we have had a shortened W2IMU horn earlier, but I have not been satisfied with either of them. I'm every year amazed about the amount of noise the antenna picks up from the high woods through side lobes. Unfortunately cutting the woods, which is very close and wide on the west, is not an option. We QSO'd on 21 Oct DL1YMK (559/559), UT3LL (559/559), LA9NEA (559/539), G4YTL (559/559), JA6AHB (559/569), DJ3FI (559/559), DL9KR (589/589), S51ZO (549/559), S52CW (559/559), G3SEK (559/569), OE5EYM (569/569), DF3RU (569/579), JA5NNS (559/559), G4ERG (559/569), RZ3BA/1 (O/O), YO2IS (O/O), PA0PLY (539/579), SM3AKW (569/579), OE9ERC (559/559), JJ1NNJ (O/O), JR9NWC (O/449), DL7APV (559/559), JL1ZCG (569/569), HB9Q (559/559), F2TU (O/559), G3HUL (549/559), UA6LGH (O/O), HA5BDJ (O/579), OE3JPC (O/569), OZ4MM (569/579), HA1YA (559/579), N9AB (549/579), I5CTE (549/569), K4EME (549/559), VE6TA (539/559), PA4FP (549/539), K8UC (549/559), DK0MM (549/599), K8ISK (539/559), W7SZ (539/539), RA3LE (O/579), F6KHM (549/569), K5AZU (569/579), K0RZ (559/569), GW3XYW (559/579), N2IQ

(579/589), K1FO (579/589), DK3BU (579/579), DL4MEA (539/549), WB0GGM (O/O), OZ6OL (O/569), S57Q (O/559), GM0ONN (O/O), KJ7F (539/559), PA3CSG (559/559), KA0Y (559/559), RW1AW (O/O), UA3PTW (O/O), DL6NAA (O/559), KL7HFQ (O/O), W7BBM (539/559), K2UYH (539/549), EA3DXU (549/559), W2WD (549/559), K5GW (559/569) and VK4AFL (O/O), on 22 Oct JH4JLV (539/559), F6HYE (O/O), DK3WG (559/569), F5FEN (579/579), IN3KLQ (549/559), JS3SIM (549/559), JR1RCH (549/549), OE5JFL (579/579), JA2TY (559/559), F/ON5OF (539/O), G3LTF (529/579), OH2DG (O/O), YU1EV (O/O), YO2DM (539/559), RW3PF (O/O), G3LQR (539/559), DK0TU (539/539), S53J (O/O), IK6EIW (539/559), OH2BNH (539/429), OK2DL (O/O), SM2CEW (579/579), W0KJY (549/559) and SM2LKW (O/O), on 18 Nov JA4BLC (559/O,579), F5FLN (549/559), JH0WJF (O/O), DJ6MB (569/569), F5KDK (O/O), ON5OF (559/599), DL5LF (O/O), 7M2PDT (559/569), DK3FB (539/559), DL5LF (O/559), CT1DMK (O/O), KA0Y (DUPE), VE9DW (O/559), K5WXN (539/559), KE2N (559/449), W7HAH (549/569), W6DF (559/559), KA0RYT (549/559), K6JEY (O/O), W7BBM (DUPE), JA3IAF (559/579), and on 19 Nov JH0BBE (O/O), JH1EFA (O/O), UT3LL (DUPE), JH1XUJ (O/O), DL8OBU (559/559), G4ALH (559/559).

#### **OK1UWA**

Josef at [email](#) is now concentrating on 3 cm EME - During the Dec SW I was mainly interested in the band 3 cm and I worked on 9 Dec at 1200 HB9BHU (559/439) and on 15 Dec W5LUA (559/549). I am also working on better equipment for 23 and 13 cm and I will be QRV on these bands in Jan, but 10 GHz is my priority.

#### **ON5OF**

Dirk at [email](#) was in Belgium in Dec, but had high winds in Antwerp that limited his activity. He also reports that neighbors in the South of France (F/ON5OF) do not like the antenna. As reported in the last NL, he operated the 2nd leg of the contest in Belgium. The following is from his log: QSO'd on 18 Nov at 0047 JL1ZCG (559/579), 0049 DL9KR (579/599), 0112 F6HYE (559/O), 0136 F5FLN (O/O), 0144 OH2PO (559/599), 0154 JH4JLV (559/O), 0207 G3SEK (449/559), 0216 JR9NWC (O/O), 0222 DL7APV (559/559), 0242 HB9Q (529/O), 0415 DJ6MB (559/569), 0421 G4ERG (559/559), 0435 UA6LGH (O/O), 0546 DL4MEA (O/O), 0556 SM3AKW (559/559), 0625 KA0Y (559/569), 0634 N2IQ (559/569), 0729 OE5EYM (559/569), 0808 K5GW (569/569), 0830 N9AB (559/569), 0839 K0RZ (559/559), 0848 K8ISK (559/559), 0911 K5WXN (559/559), 0925 K1FO (569/569), 1007 W7SZ (O/O), 1047 KE2N heard - no QSO, 1048 OZ4MM (569/569), 1101 VE9DW (549/O) and 2358 JL1ZCG (559/559) - dup, and on 19 Nov at 0012 VK4AFL (549/559), 0146 DF3RU (549/559), 0222 EA3DXU (O/O), 0340 HA1YA (O/O), 0558 F5FLN - dup, 0637 OE9ERC (449/O), 0913 LA9NEA (559/559), 0939 OE5JFL (559/569), 1046 DL4KG (O/O), 1110 G3LTF (O/O), 1133

**DK3FB (559/O) [not complete?], 1233 F5FEN (569/569) and 1250 DK3FB (432/449) [dup?] for 38x22 or 83,600 points. The ON station was his 26 dB gain 16 yagi antenna, IC820 TX, FT100 RX, GS35B 1 kW PA and 0.5 dB NF preamp.**

#### **ON5RR**

**Marc writes -- Activity was rather low last year, mostly due to the bad WX. Never the less our station was operated whenever possible by myself and my outstanding co-op Michel, ON7EH. We have made several enhancements to the station. The most interesting is automated tracking system based on OE5JFL's ideas. I visited Hannes in the beginning of the summer, and with his help constructed the controller. On Saturday 23 Dec we put the new enhanced station on 13 cm for the 1st time. We worked LX1DB (O/O) on 2304.050. We were running my 6 m dish, only 20 W output in the shack and a 0.67 NF 27 dB gain LNA. Willi was using his 11 m dish and about 200 W output. From time to time we could read him (539)! We can RX/TX on 2304 and 2320 MHz. It was rather hectic to make the QSO. To start the gearbox of the dish was frozen. Apparently water got in to it. After the QSO, we tested with Willi on 2320. I then discovered that our power output had dropped to 20 W. One of the hybrids in the PA was blown. Now it is fixed and we read 75 W in the shack. There is about 1 dB loss in the cables to the feed, so we should have about 60 W at the feed. We are now interested in skeds on both 23 and 13 cm. This is a nice way to end a not so good year.**

#### **OZ4MM**

**Stig was on 1296 during the Dec SW and found only few stations. He worked WA6PY for initial #179 with FB sigs, W7GBI and G3LTF on SSB. Stig listened also on 432 and heard only HB9Q calling CQ.**

#### **PA0PYL**

**Jan updates his latest activities -- Murphy paid us a visit, just before the 2nd leg of ARRL Contest I lost my AZ rotator. I was able to sked with VK4AFL and JA4BLC just before the contest. Unfortunately conditions were poor and I just heard some partials from Yoshiro, and nil from VK4AFL. Because of the rotator problem I was not able to operate in the contest. Since then I have bought a new YEASU rotor (GS-1000C), but I am having trouble modifying it for my control system. No schematic has been located despite several requests. It is disappointing to see that it still uses a dc motor and potentiometer-meter for indication! I'm also working on an EME database in Microsoft ACCESS. I expect to be QRV again by the New Year and can be reached by email at:**

**[Jan, PA0PYL](#)**

#### **PA4FP**

**Frank's station is now 4 x 26 el BV-OPT70 yagis and 2 x 3CX800 PA giving 1350 W out. He is still using Aircom cable, so he has only 750 W at his antenna, but**

plans to switch to 7/8" Flexwell. This should result in more than 1 kW at the feedpoint. Because of shift work he can be QRV during night or day. For skeds email to:

[Frank, PA4FP](#)

#### **SM2CEW**

Peter had contest problems too -- During the contest I discovered that a squirrel had chewed through some coax cables in the feed so I decided to rebuild the preamp/relay box and fix the cables. All preamps were realigned, they have all been out there for 3-4 years without any checkups. Sure enough, they needed some work on them. The 432 post preamp showed 3 dB NF due to a bad trimmer, and the 1296 preamp was way off in tuning. If nothing else, knowing that the preamps are working well does wonders to my self-confidence. I even tested them through the relays just to make sure everything was alright. I finished the rebuild on 10 Dec so I decided to do a little operating. I was only QRV on 432 but worked the following stations: VK4AFL - very loud indeed even through the trees on my moonrise, DF3RU, G3LTF, DJ3FI, UA6LGH, UT3LL, G3HUL, OE3JPC and DL4KG - all good signals. Then on 17 Dec I was QRV on 1296 and worked the following stations on random; WA6PY for an initial (#), HB9Q, DL6LAU #, OZ4MM, G4CCH and G3LTF. After the contact with Paul, WA6PY I suddenly had signals masked by about 5 db of noise. Sensitivity seemed ok but the extra noise was annoying. It took a while to figure out that it was the 432 preamp that was oscillating and injecting noise into the system. I fixed the problem and everything was back to normal. Now I will start working on a better preamp for 1296, the present one is not up to today's standards, but as I have a 27' dish I still hear quite well.

#### **VK4AFL**

Trevor at email was active in both the NA and EUR moon windows on 70 cm during the Dec SW, but worked only K1FO and K5WXN. No other signals were heard on Saturday.

#### **W2UHI**

Frank had a great time during the Dec SW -- Good condx with lots of stations on. I missed a lot, but did work a dozen or more including VE9DW, G4CCH and OK1KIR. Heard were DF4PV, K2DH, K5JL, K3AX, K0YW, K2AH, WA6PY, KA0Y, N2IQ and W7SZ.

#### **W7HAH**

Shep writes - I had 26 contacts on 432 during the ARRL contest. I also had 38 contacts on 2 m for a contest total of 64x39. Stations worked on 432 were as follows: on 22 Oct DL9KR, K1FO, N2IQ, KORZ, OE5JFL and G3SEK, on 24 Oct K8UC for initial #211, on 13 Nov PA4FP #212, and on 18 Nov VE9DW, OH2PO, DL4MEA, HB9Q #213, K5AZU, F5FLN, N9AB, DL7APV, DJ6MB,

DF3RU #214, K2UYH, OZ4MM, K5GW, KAOY #215, VK4AFL, JH4JHV #216, LA9NEA #217, F5FEN, F6HYE #218 and SM3AKW #219. Unfortunately my health is not good and it does not appear that I will be able to continue operation on 70 cm too much longer. I had hoped to complete WAS before I was forced to stop operation, but I still need the states of Nebraska, Rhode Island and Kentucky. I wonder if there is anyone who could help with these states? Anyone needing the state of Montana on 432 EME, please sked me as soon as possible. My email is . There is no sign that there will be another 432 EME station on 432 in Montana in the future.

#### **W7SZ**

Larry at [email](#) found the Dec SW well attended and condx good - I made 11 contacts on 23 cm including 3 initials. QSO'd were K0YW, K5JL, N2IQ, W2UHI, OK1KIR, G4CCH, DL6LAU for initial (#), IK2MMB, KA0Y #, WA1JOF # and DJ9YW. WA1JOF had surprisingly good signal for an 8' dish. I also heard a good signal from K3AX but we did not QSO.

#### **WA1JOF**

Don reports lots of fun during the Dec SW. He worked on 1296 worked G3LTF, W1QC, DJ9YW, VE6TA, KA0Y, W7CS, W7SZ and W7GBI for initial #31. He needs a resked with DJ5MN.

#### **WA6PY**

Paul at [email](#) in DM13la is now QRV on 1296 with a modest station - I QSO'd in Dec W2UHI, K2UYH, G4CCH, KA0Y, K0YW, K5JL, K2DH, OK1KIR, W1QC, N2IQ, HB9BBD on CW and SSB, DJ9YW, W7GBI and W5LUA. During Dec SW I heard DL6LAU (O), WA1JOF (M) and W7QX (M). I also hear my own echoes (M) using a I5TDJ version of the time delay noise filter. I worked on 16 Dec DL6LAU and OZ4MM, and on 17 Dec G3LTF, ZS6AXT, W6HD, SM2CEW and HB9Q to bring me to initial #21. At present I am using a solid Al 8' dish with f/D 0.365, my 18 years old W2IMU feed, good LNA and 2x7289 PA at the dish with only 2.5 m of 1/2" Heliac feed line. I am receiving 6.5 dB cold sky to ground and 11.5 dB of Sun noise. Unfortunately my antenna gain is not optimize for TX. I am using this temporary setup only to get my EME equipment together and tested. When I am done on 1296, I will switch to 2304/2320/2424. Next will be 10 GHz and maybe also 432. In the mean time I am searching for a big gear to use for the AZ drive of my big dish. I plan to be QRV on 1296 during the 6/7 Jan SW - hopefully with higher power.

#### **WB0GGB**

John is now QRV with 4 x 24 el yagis and 600 W. In the contest he made 16 QSOs. Initials included HB9Q for #77, KA0Y #78 and JA6AHB #79. Heard were GW3XYW, PA3CSG, DF3RU, K2UYH, DL4MEA, DJ3FI, F5HRY, VK4AFL, JA5NNS, SM3AKW, ON5OF, G3LTF, HA1YA, F6HYE, F5FEN, DJ6MB,

**JH1XUJ and K4EME. During the recent SW I worked on 9 Dec SM3AKW #80, nil HA1YA, nil ON5OF, nil DL8OBU - next evening, nil DJ3FI - did not know of sked, nil KJ7F, nil JH1XUJ and VK4AFL #81, on 10 Dec DJ3FI #82, and on 11 Dec KJ7F #83 - good signal. Heard were K4QI, G3SEK, K2UYH, K1FO, DL8OBU, UA6LGH, N2IQU, W1ZX and K5WXN.**

#### **ZS6AXT**

**Ivo writes -- I am very sorry to hear about passing away by Pierro, I5TDJ. We will all certainly remember him! Despite very bad weather I managed to work few stations in Dec. We had heavy rain and thunderstorms here. On 23 cm I worked on 9 Dec DF4PV, DL6LAU, G3LTF, G4CCH, S59DCD and OZ6OL. Heard was DJ5MN and CWNR were F1PYR and K3AX. I closed down about 2300 due to the thunderstorms. I added on 10 Dec G4CCH, IK2MMB and OZ6OL, and shut down at 2400 again due to thunderstorms. No further stations were heard. All stations had good signals and my own echoes were also very good. Regarding the Lunar Calendar for 2001, I think that the weekends after the marked ones are also very good, sometimes even better than the marked ones! That is with the exception of Aug where the Sun is too close to Moon. With today's large antennas I think that 10 degs is good for more than 90% of EME operators. That is on 70cm, for 23 cm guys it should be no problem at all. Maybe such weekends should be marked also, as a 2nd choice. It is now time to think about and organize a Microwave EME Contest for 2001. In my opinion it was very popular with the majority and should be definitely repeated! What about this Tom, Al and others? It can be even over 2 weekends, with different bands in each. I hope to be QRV by then also on 3 cm. I'm presently busy working on the TWT SMPSU that is nearly finished.**

#### **K2UYH**

**The preSW, on 3 Dec, I was on 1296 and worked at 0011 partial WA6PY (M/O) - no R's, 0105 KA0Y (559/559) for initial #184 and 0118 WA6PY (O/O) #185. During the Dec SW I was tied up on Saturday night and thus only available during the Eur window for the first moon pass. As a result I was only on 432 during weekend. N6TX, the director of the SETI League was in Princeton to deliver a talk and visited our shack during the moon activities on Friday night (local time). Brian, KB2TIS our new NL production assistant (see NL masthead) also stopped by. Unfortunately my polarization rotator froze up and as a result did not do too well with my skeds. I QSO'd on 8 Dec at 2324 G3SEK (559/449), 2330 UA3PTW (549/559) for initial #640, on 9 Dec 0000 nil IN3AGI, 0030 nil RZ3BA - around this time temperature dropped and my pol rotated stopped turning, 0100 nil DL5LF - he heard me FB, 0130 nil DK0MM and 0200 nil KE3N. KJ7F had a conflict and we moved our sked to 10 Dec at 0500, but only partial KJ7F (449/-). My rotator had froze up again and in the wrong position for him to copy. We tried again on 12 Dec at 0500 and this time easily completed**

(O/O) for #641. The WX was warmer and the pol rotator worked fine, but was not really needed - hi. I will be away on business (in Phoenix, AZ) during the next SW. I hope to be able to visit with WA7CJO or W7GBI while there, and may even be able to listen on the SW.

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## NETNEWS

by

[G4RGK, DAVID DIBLEY](#)

**F1PYR** is a new station on 1296 in JN19. He is using a 3 m dish, TH347 PA at 1 kW+ and a DB6NT preamp, but is apparently having RX problems. He uses a 3 dB coupler for circular pol and feels that his feed is not yet optimized.

**K0RZ** had an incomplete QSO with PA4FP during the contest and needs to resked.

**N2IQ** got his big amp running again was active on 23 cm during the SW. Mark reports working many stations.

**WA8WZG** had problems with the cold during the Dec SW. The water in his 1296 PA froze up and the water jackets split. Tom needs to repair the plumbing.

**K2DH** reports good condx during the SW, but had problems with the cold. Dave eventually got things thawed out and was able to QSO WA1JOF - very nice signal, KA0Y and WA6PY for an initial. He reports K5JL was the loudest signal on the band.

**W5LUA** worked on 6 cm F2TU, on 3 cm HB9BH and on 23 cm WA6PY. Al has 2 dB of moon noise on 10 GHz.

**W4OP** is listening on 10 GHz and copied HB9BHU and OK1UWA.

**KJ7F** worked on 70 cm during Dec W1ZX and K2UYH to bring him to initial #22. Terry heard nil from WB0GGM and needs a resked.

**W7QX** is now QRV on 1296 with a 10' dish and 125 W. During the Dec SW he added 3 initials with DL6LAU, VE6TA and KA0Y to bring his total to #49. He needs a resked with WA6PY.

**SM4IVE** now has all the materials for a new dish and will begin work after Christmas.

**LX1DB** was on 70 cm during the Dec SW.

**CT1WB's** 8 yagi array was completely destroyed in bad storm. There are now no stations on 70 cm from CT-land. CT1DMK be helping CT1WB rebuild in the spring. KL7HFQ was on 432 during the SW but had problems with a very high SWR and Aurora. He did work HB9Q and heard K2UYH and KJ77F, but later his transverter power module died. He hopes to be QRV again in Jan.

**KA0RYT** is now QRV again on 70 cm.

**WD5AGO's** dish is snow covered and won't be moving for while, so no skeds till further notice. Tommy is building new xvtr for 23 cm.

**VE1ALQ** was iced up during the Dec SW and not too active.

**VE6NA** reports a balmy -30 deg C during the Dec SW. On 1296 he CWNW F1PYR and copied K0YW and HB9BBD on SSB.

**VE4MA** also had problems with the bad WX - high winds and -30 deg C temperatures during Dec. Barry has finally got his 6 tube amp running on 23 cm.

**K7XC** is on 70 cm with a single yagi from DM09. He will be looking around during the coming SW, but does want any skeds yet.

**K5WXN** had high winds during the SW, but was active and worked VK4AFL.

**WB4BKC** has been doing a lot of traveling lately, but did pick up a 12' TVRO dish and has a preamp and a 200 W PA for 23 cm. He is looking for feed info.

**UR5LX** is reported QRT on 70 cm EME.

**G4ALH** is now up to initial #100 on 432. During the SW Rob called DJ3FI but only rcvd a QRZ in reply.

**W7CNK** is looking for info on computer modeling scalar feeds. [See OE5JFL's WEB page at [www.qsl.net/oe5jfl](http://www.qsl.net/oe5jfl).]

**K5JL** was QRV on 23 cm during the SW and QSO'd K0YW and WA1JOF among others.

**PA3CSG** asks for info on a Double ridge waveguide transition to coax at 5-11 GHz. [Use WR-137 or WR-90 1st and then tune with screws to Double ridge.]

**G4RGK** is still QRT on EME until repairs are made to his antennas.

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## FOR SALE

W8TN has **a new TH-308 for sale**. Contact him at:  
[W8TN](#)

W4TH who **sells Russian tubes, and offer a wide selection that are very popular for EME (GS-35b, GI-7b, GU-91b, GU-84b, 4CX1600u, etc.)** notes that WEB URL listed in a previous NL was not right. Tom's link is:

[Tom's Site with Tube data.](#)

SM4IVE is **looking an article for a beam forming ring for a dish feed.**

WA6KBL: **has high power 10 GHz TWTA for sale.** See Jeff's WEB page at:

[Jeffrey's 10 GHz TWTA Web site.](#)

VE1ALQ **is looking for 120V, 10 A variac.**

K5JL has **info for anyone wanting a copy of the EME2000 CD.**

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## FINAL

Klaus, DL4EBY wants to remind you that on his WEB page:  
[DL4EBY](#)

which appears at the head of every NL, is G3SEK's Lunar Calendar 2001, Ian's draft of the new EME Operating Procedures, and of course, the EME Directory. G3SEK's Operating Procedures have also been printed at the end of this NL.

We have received only one response thus far on the 2001 SW date from ZS6AXT. Ivo did not want to change the dates, but wanted more dates added. I do not agree, but the majority should decide this issue. Lets here from you.

Besides the SSB Contest mention at the start of this NL, the is the ARRL's Jan VHF Contest that counts EME QSOs on 20/21 Jan - unfortunately the moon far south, and the Eur World-Wide EME Contest on 31 Mar/1 April for 432/2.3-6.3 GHz and 28/29 April for 1296/10 GHz.

Just about every report included Seasons Greetings and Good Wishes. I did not include these to conserve space, but I do want to forward these messages to you and your family and include my own Greetings and Best Wishes for the New Year.

## 73, Al (& Sal) - K2UYH



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### EME schedules:

#### 432 MHz

6 JAN

Time	432.040	432.045
0200z		KJ7F -VE1ALQ
0600z	JA5NNS-WB0GGM	
0630z	JH1XUJ-WB0GGM	
2200z	WB0GGM-UA6LGH	
2230z		W1ZX -ON5OF
2300z	WB0GGM-ON5OF	W1ZX -HA1YA
2330z	WB0GGM-HA1YA	

#### 1296 MHz

6 JAN

Time	1296.040	1296.050
2000z		WA1JOF-OK1KIR
2030z		WA1JOF-SM2CEW
2100z		WA1JOF-PA3CSG
2130z		WA1JOF-DJ5MN
2200z		WA1JOF-HA5SHF
2230z	SM2CEW-F1PYR	WA1JOF-ZS6AXT
2300z	W5LUA -F1PYR	VE6TA -HA5SHF
2330z	W5LUA -VE6NA	W4AD -WA1JOF

7 JAN

Time	1296.040	1296.050
0000z	VE6TA -WA9OUU	VE6NA -WA1JOF
0030z	VE6NA -VE1ALQ	WA6PY -WA1JOF
0100z	WA6PY -VE1ALQ	W4RDI -WA1JOF
0130z		WA8WZG-WA1JOF

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**EME OPERATING PROCEDURES FOR 432 AND  
ABOVE BY G3SEK**

## [Netnotes by K1RQG](#)

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### [Leave Contest Info or Comments to Allen Here](#)

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This information was obtained from: [Scott, KD4LT](#)

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[Rein, W6/PA0ZN](#)

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